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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/661,845 | 09/14/2000 | Donald S. Lydon | ADC 1942 | 1642 |

7590 12/03/2003

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EXAMINER

ELALLAM, AHMED

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2662

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DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/661,845

Applicant(s)

LYDON ET AL.

Examiner

AHMED ELALLAM

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 0200.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This is responsive to communication filed on September 14, 2000.

Specification

1. The disclosure is objected to because of the following informalities:

On page 1, paragraph 1, the status of Reference to incorporated US Application must be updated. Reference to any Attorney Docket must be deleted.

On page 13, line 26, the status of U.S. Patent Application should be updated. Reference to any Attorney Docket must be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuholm, US (6,104,997) in view of Shuholm et al, US (5,923,710).

Regarding claims 5 and 6, with reference to figure 4, Shuholm' 997 discloses a routing switch for connection to a plurality of data source according to ASE standard (Audio Engineering Society) (claimed each data source providing

a data stream composed of a session of frames, each frame having first and second Sub-frame, wherein the first sub-frame includes framing bits each sub-frame includes multiple payload data bits and a data block bit, the framing bits having a first state to indicate start of a sequence of data block bits and otherwise having a second state, the succession of first sub-frames constituting a first channel and the succession of second frames constituting a second channel, and the routing switch including:

- a plurality of input modules (12, 13) having respective input signals for connection to the signal sources,

- a cross-point matrix having outputs for connection to signal destination), see figure 4 and column 2, lines 29-49, (reads on a plurality of output modules each having an output terminal for connection to a signal destination, and

- a plurality of buffers 14, 17 in combination with selectors 20 and 22, see column 2, lines 29-49 (reads on a routing core for supplying selectively a channel of a first data stream and a channel of a second data stream to selected output module for combination to provide the output data stream),

Shuholm' 997 does not explicitly disclose that the cross-point matrix Includes a circuit which selectively delays the data block bits of one channel to the data block bits of the one channel to bring into phase alignment with the data block bits of the other channel.

However, Shuholm' 710, with reference to figure 2, discloses in the same of endeavor, selectively delaying data block bits of one channel to bring them into

phase alignment with the data block bits of the other channel. See abstract, column 2, lines 64-67 and column ^{3/}5, lines 1-30.

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to provide the cross-point matrix of Shuholm' 997 system with the block alignment method/system of Shuholm' 710 so that synchronous switching of audio data can be provided.

Allowable Subject Matter

4. Claims 1-4 are allowed.

Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Lew, US 5,245,667); UK patent GB 2273022); Lighthart et al, Design of a Digital Audio Input Output Chip, CUSTOM INTEGRATED CIRCUIT CONFERENCE, IEEE 1989; Angelici et al, NEW ARCHITECTURE FOR AN AES-EUB DIGITAL AUDIO RECEIVER, IEEE, VOL 43, No3, August 1997.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (703) 308-6069. The examiner can normally be reached on 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

AHMED ELALLAM
Examiner
Art Unit 2662
November 19, 2003



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600